

ABSTRACT OF THE DISCLOSURE

According to an aspect of the invention an electric motor is provided comprising a housing, a plurality of stator magnets, first and second actuator components, a link, and first and second electrical conductors. The actuator motors are secured to the housing and are located in at least two row arrangements. For each row arrangement odd magnets have north on a first side and south on a second side and even magnets have south on the first side and north on the second side. The arrangements have magnetic field lines forming in one direction across a first actuator gap from each odd magnet of the first arrangement to each odd magnet of the second arrangement and across a second actuator gap from each odd magnet of the second arrangement back to each odd magnet of the first arrangement, and in an opposing direction across the second actuator gap from each even magnet of the first arrangement to each even magnet of the second arrangement and across the first actuator gap from each even magnet of the second arrangement back to each even magnet of the first arrangement. The first and second actuator components are located in the first and second actuator gaps respectively. The link secures the actuator components to one another to form an actuator which is mounted to the housing for movement relative to the housing. The first and second electrical conductors are secured to the first and second actuator component respectively. The first

conductor has a section located in the first actuator gap and extending transverse to the magnetic field lines so that a current therein causes movement thereof relative to the housing. The second conductor has a section located in the second actuator gap and extending transverse to the magnetic field lines so that a current therein causes movement thereof relative to the housing.

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